

IN THE CLAIMS:

Complete listing of all claims replacing all prior versions of the claims.

1. (Currently Amended) An arrangement for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising determining means for determining the position of at least a part of the occupant, and a control circuit coupled to said determining means for controlling deployment of the side airbag based on the determined position of the at least a part of the occupant,

said determining means comprising at least one receiver adapted to receive waves from a space above a seat portion of the seat and a processor coupled to said at least one receiver for generating a signal representative of the position of the at least a part of the occupant based on the waves received by said at least one receiver.

said at least one receiver being capable of receiving electromagnetic waves.

2-4. Cancelled.

2/ 1. (Currently Amended) The arrangement of claim [[2]] 1, wherein said determining means further comprise a transmitter adapted to transmit waves into the space above the seat portion of the seat, said at least one receiver being arranged to receive the waves transmitted by said transmitter.

3/ 6. (Previously Presented) The arrangement of claim 5, wherein said at least one receiver is structured and arranged to convert received waves into electrical signals.

4/ 7. (Currently Amended) The arrangement of claim [[2]] 1, wherein said at least one receiver is mounted in a door of the vehicle.

5/ 8. (Currently Amended) The arrangement of claim [[2]] 1, wherein said at least one receiver is mounted on or adjacent to the airbag module.

6/ 9. (Previously Presented) The arrangement of claim 1, wherein said control circuit controls deployment of the side airbag by suppressing deployment of the side airbag, controlling a time at which deployment of the side airbag starts, controlling a rate of gas flow into the side airbag, controlling a rate of gas flow out of the side airbag or controlling a rate of deployment of the side airbag.

8/ 10. (Currently Amended) An arrangement for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising
determining means for determining whether an occupant is present in the seat, and
a control circuit coupled to said determining means for controlling deployment of the side airbag based on whether an occupant is present in the seat,

said determining means comprising at least one receiver adapted to receive waves from a space above a seat portion of the seat and a processor coupled to said at least one receiver for generating a signal representative of the presence or absence of an occupant in the seat based on the waves received by said at least one receiver.

said at least one receiver being capable of receiving electromagnetic waves.

11-13. Cancelled

9/ 14. (Currently Amended) The arrangement of claim [[11]] 10, wherein said determining means further comprise a transmitter adapted to transmit waves into the space above the seat portion of the seat, said at least one receiver being arranged to receive the waves transmitted by said transmitter.

10/ 15. (Previously Presented) The arrangement of claim 14, wherein said at least one receiver is structured and arranged to convert received waves into electrical signals.

11/ 16. (Currently Amended) The arrangement of claim [[11]] 10, wherein said at least one receiver is mounted in a door of the vehicle.

12/ 17. (Currently Amended) The arrangement of claim [[11]] 10, wherein said at least one receiver is mounted on or adjacent to the airbag module.

13/ 18. (Previously Presented) The arrangement of claim 10, wherein said control circuit is structured and arranged to suppress deployment of the side airbag if an occupant is not present.

14/ 19. (Previously Presented) The arrangement of claim 10, wherein said determining means determine a position of at least a part of the occupant when an occupant is in the seat and said control circuit is structured and arranged to control deployment of the side airbag based on the determined position of at least a part of the occupant.

16/20. (Currently Amended) A method for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising the steps of:

determining the position of at least a part of the occupant, and

controlling deployment of the side airbag based on the determined position of the at least a part of the occupant,

the step of determining the position of at least a part of the occupant comprising the steps of:

transmitting waves into the space above the seat portion of the seat;

receiving waves from a space above a seat portion of the seat; and

generating a signal representative of the position of the at least a part of the occupant based on the received waves.

21. Cancelled

17/22. (Currently Amended) The method of claim [[21]] 20, wherein the step of receiving waves comprises the step of arranging an ultrasonic transducer in the vehicle in a position to receive waves from the space above the seat portion of the seat.

23. Cancelled

18/24. (Currently Amended) The method of claim [[21]] 20, wherein the step of receiving waves comprises the step of mounting a transducer capable of receiving waves in a door of the vehicle in a position to receive waves from the space above the seat portion of the seat.

19/25. (Currently Amended) The method of claim [[21]] 20, wherein the step of receiving waves comprises the step of mounting a transducer capable of receiving waves in a door of the vehicle on or adjacent to the airbag module in a position to receive waves from the space above the seat portion of the seat.

20/26. (Currently Amended) The method of claim [[21]] 20, wherein the step of receiving waves comprises the step of arranging a receiver capable of receiving electromagnetic waves in the vehicle in a position to receive electromagnetic waves from the space above the seat portion of the seat.

21. (Previously Presented) The method of claim 20, wherein the step of controlling deployment of the side airbag comprises at least one of the steps of suppressing deployment of the side airbag, controlling a time at which deployment of the side airbag starts, controlling a rate of gas flow into the side airbag, controlling a rate of gas flow out of the side airbag and controlling a rate of deployment of the side airbag.

22. (Currently Amended) A method for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising the steps of:

determining whether an occupant is present in the seat, and
controlling deployment of the side airbag based on the presence or absence of an occupant in the seat,

the step of determining whether an occupant is present in the seat comprising the steps of:
transmitting waves into the space above the seat portion of the seat;
receiving waves from a space above a seat portion of the seat; and
generating a signal representative of the presence or absence of an occupant in the seat based on the received waves.

29. Canceled.

23. (Currently Amended) The method of claim [[29]] 28, wherein the step of receiving waves comprises the step of arranging an ultrasonic transducer in the vehicle in a position to receive waves from the space above the seat portion of the seat.

31. Canceled

24. (Currently Amended) The method of claim [[29]] 28, wherein the step of receiving waves comprises the step of mounting a transducer capable of receiving waves in a door of the vehicle in a position to receive waves from the space above the seat portion of the seat.

25. (Currently Amended) The method of claim [[29]] 28, wherein the step of receiving waves comprises the step of mounting a transducer capable of receiving waves in a door of the vehicle on or adjacent to the airbag module in a position to receive waves from the space above the seat portion of the seat.

24/ 34. (Currently Amended) The method of claim ~~28~~ 22, wherein the step of receiving waves comprises the step of arranging a receiver capable of receiving electromagnetic waves in the vehicle in a position to receive electromagnetic waves from the space above the seat portion of the seat.

27/ 35. (Previously Presented) The method of claim ~~28~~ 22, wherein the step of controlling deployment of the side airbag comprises at least one of the steps of suppressing deployment of the side airbag, controlling a time at which deployment of the side airbag starts, controlling a rate of gas flow into the side airbag, controlling a rate of gas flow out of the side airbag and controlling a rate of deployment of the side airbag.

36. (Previously Presented) The method of claim ~~28~~ 22, further comprising the steps of:
determining a position of at least a part of the occupant when an occupant is in the seat, and
controlling deployment of the side airbag based on the determined position of at least a part of the occupant.

37. (Previously Presented) A combination of a vehicle and the arrangement of claim 1, the vehicle having a side door, at least a portion of the arrangement residing on the side door of the vehicle.

115/ 38. (Previously Presented) A combination of a vehicle and the arrangement of claim ~~10~~ 8, the vehicle having a side door, at least a portion of the arrangement residing on the side door of the vehicle.

39-40. Canceled.

29/ 41. (New) An arrangement for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising
determining means for determining the position of at least a part of the occupant, and
a control circuit coupled to said determining means for controlling deployment of the side airbag based on the determined position of the at least a part of the occupant,
said determining means comprising:

a transmitter adapted to transmit waves into the space above the seat portion of the seat,
at least one receiver adapted to receive waves from a space above a seat portion of the seat, said at least one receiver being arranged to receive the waves transmitted by said transmitter; and

a processor coupled to said at least one receiver for generating a signal representative of the position of the at least a part of the occupant based on the waves received by said at least one receiver.

30/ 42. (New) The arrangement of claim 41, wherein said at least one receiver is structured and arranged to convert received waves into electrical signals.

31/ 43. (New) The arrangement of claim 41, wherein said at least one receiver is an ultrasonic transducer.

32/ 44. (New) An arrangement for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising
determining means for determining whether an occupant is present in the seat, and
a control circuit coupled to said determining means for controlling deployment of the side airbag based on whether an occupant is present in the seat,
said determining means comprising:

a transmitter adapted to transmit waves into the space above the seat portion of the seat;
at least one receiver adapted to receive waves from a space above a seat portion of the seat, said at least one receiver being arranged to receive the waves transmitted by said transmitter; and
a processor coupled to said at least one receiver for generating a signal representative of the presence or absence of an occupant in the seat based on the waves received by said at least one receiver.

33/ 45. (New) The arrangement of claim 44, wherein said at least one receiver is structured and arranged to convert received waves into electrical signals.

34/ 46. (New) The arrangement of claim 44, wherein said at least one receiver is an ultrasonic transducer.

35/ 47. (New) A method for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising the steps of:
determining the position of at least a part of the occupant, and

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controlling deployment of the side airbag based on the determined position of the at least a part of the occupant,

the step of determining the position of at least a part of the occupant comprising the steps of:

receiving waves from a space above a seat portion of the seat; and

generating a signal representative of the position of the at least a part of the occupant based on the received waves;

the step of receiving waves comprising the step of arranging a receiver capable of receiving electromagnetic waves in the vehicle in a position to receive electromagnetic waves from the space above the seat portion of the seat.

36/48. (New) A method for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising the steps of:

determining the position of at least a part of the occupant, and

controlling deployment of the side airbag based on the determined position of the at least a part of the occupant,

the step of controlling deployment of the side airbag comprising at least one of the steps of suppressing deployment of the side airbag, controlling a time at which deployment of the side airbag starts, controlling a rate of gas flow into the side airbag, controlling a rate of gas flow out of the side airbag and controlling a rate of deployment of the side airbag.

37/49. (New) A method for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising the steps of:

determining whether an occupant is present in the seat, and

controlling deployment of the side airbag based on the presence or absence of an occupant in the seat,

the step of determining whether an occupant is present in the seat comprising the steps of:

receiving waves from a space above a seat portion of the seat; and

generating a signal representative of the presence or absence of an occupant in the seat based on the received waves,

the step of receiving waves comprising the step of arranging a receiver capable of receiving electromagnetic waves in the vehicle in a position to receive electromagnetic waves from the space above the seat portion of the seat.

38/ 50. (New) A method for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash, comprising the steps of:

determining whether an occupant is present in the seat, and

controlling deployment of the side airbag based on the presence or absence of an occupant in the seat,

the step of controlling deployment of the side airbag comprising at least one of the steps of suppressing deployment of the side airbag, controlling a time at which deployment of the side airbag starts, controlling a rate of gas flow into the side airbag, controlling a rate of gas flow out of the side airbag and controlling a rate of deployment of the side airbag.
